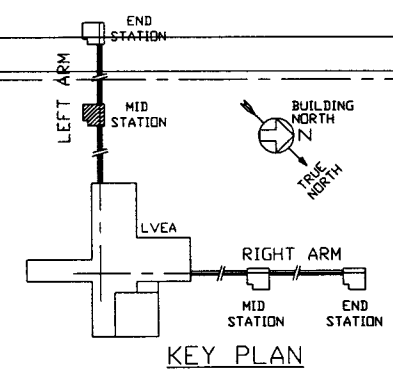


**VACUUM/UTILITY PIPING PLAN**

MECHANICAL ROOM

**NOTES:**

1. SEE SPEC. V049-2-021 FOR INSTALLATION/ COMMISSIONING INFORMATION.
2. FOR TUBING/ PIPE SUPPORT REQUIREMENTS, SEE SPEC. V049-2-021, SECTION 10.
3. FOR GATE VALVE ANNULUS TUBING INSTALLATION SEE DWG. V049-5-006.



DWG. NO.	DESCRIPTION	REFERENCE DRAWINGS	DWG. NO.	DESCRIPTION
V049-0-011	P & ID LEFT MID STATION			
V049-0-006	P & ID 80K CRYOPUMP			
V049-5-006	EQUIPMENT ARRANGEMENT LEFT MID STATION			
1101103	LIGO VACUUM EQUIPMENT MID STATION			

REV	DESCRIPTION	CHKD	DRWN	DATE	DCDR
4	AS-BUILT				
3	REISSUED FOR CONSTRUCTION AS NOTED	DHW	RDC	06/06/97	0491
2	ISSUED FOR CONSTRUCTION	DHW	RDC	04/28/97	0440
1	ISSUED FOR FDR UPDATE & BID	DHW	RDC	12/23/96	0356
0	ISSUED FOR FDR	DHW	RDC	5/7/96	0153

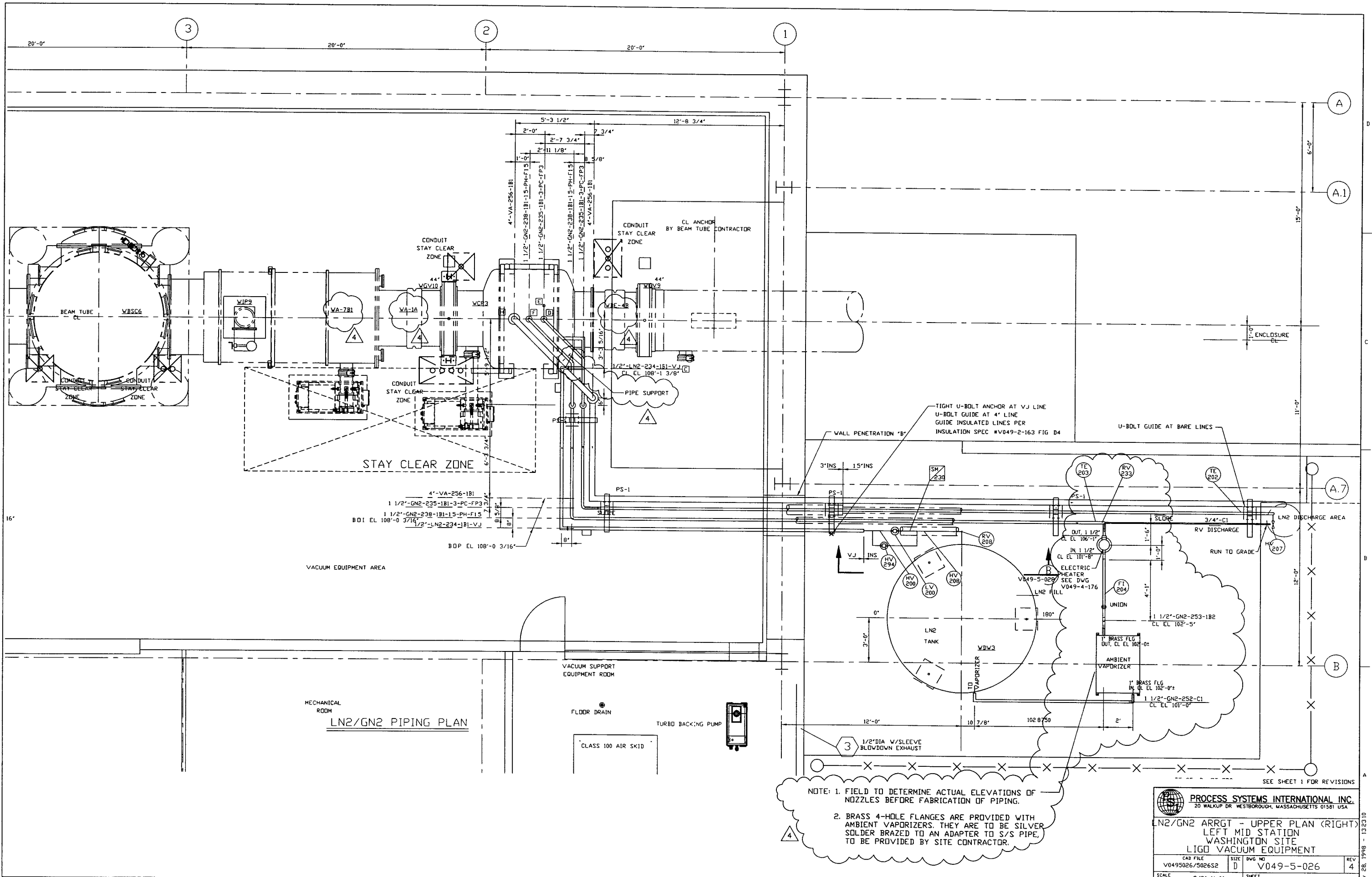
**PROCESS SYSTEMS INTERNATIONAL INC.**  
 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA

**VAC/UTIL PIPE ARGV - LOWER PLAN**  
 LEFT MID STATION  
 WASHINGTON SITE  
 LIGO VACUUM EQUIPMENT

CAD FILE: V0495026/5026S1  
 SCALE: 3/8"=1'-0"

REV 4  
 SHEET 1 OF 4

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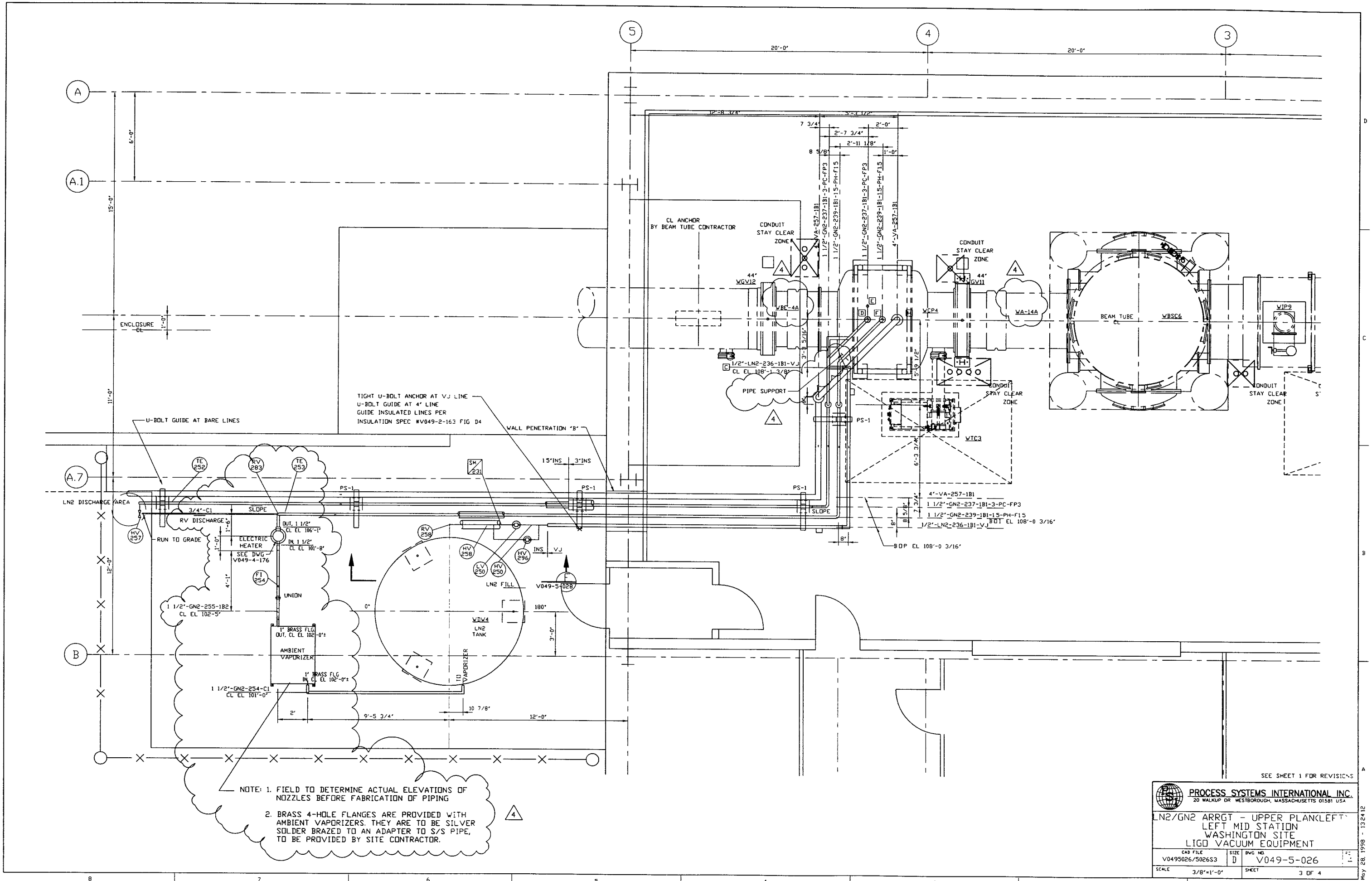
NOTE: 1. FIELD TO DETERMINE ACTUAL ELEVATIONS OF NOZZLES BEFORE FABRICATION OF PIPING.  
 2. BRASS 4-HOLE FLANGES ARE PROVIDED WITH AMBIENT VAPORIZERS. THEY ARE TO BE SILVER SOLDER BRAZED TO AN ADAPTER TO S/S PIPE, TO BE PROVIDED BY SITE CONTRACTOR.

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LN2/GN2 ARRGT - UPPER PLAN (RIGHT)  
 LEFT MID STATION  
 WASHINGTON SITE  
 LIGD VACUUM EQUIPMENT

CAD FILE V0495026/5026S2	SIZE D	DWG NO V049-5-026	REV 4
SCALE 3/8"=1'-0"	SHEET 2 OF 4		

MAY 28, 1998 - 132310



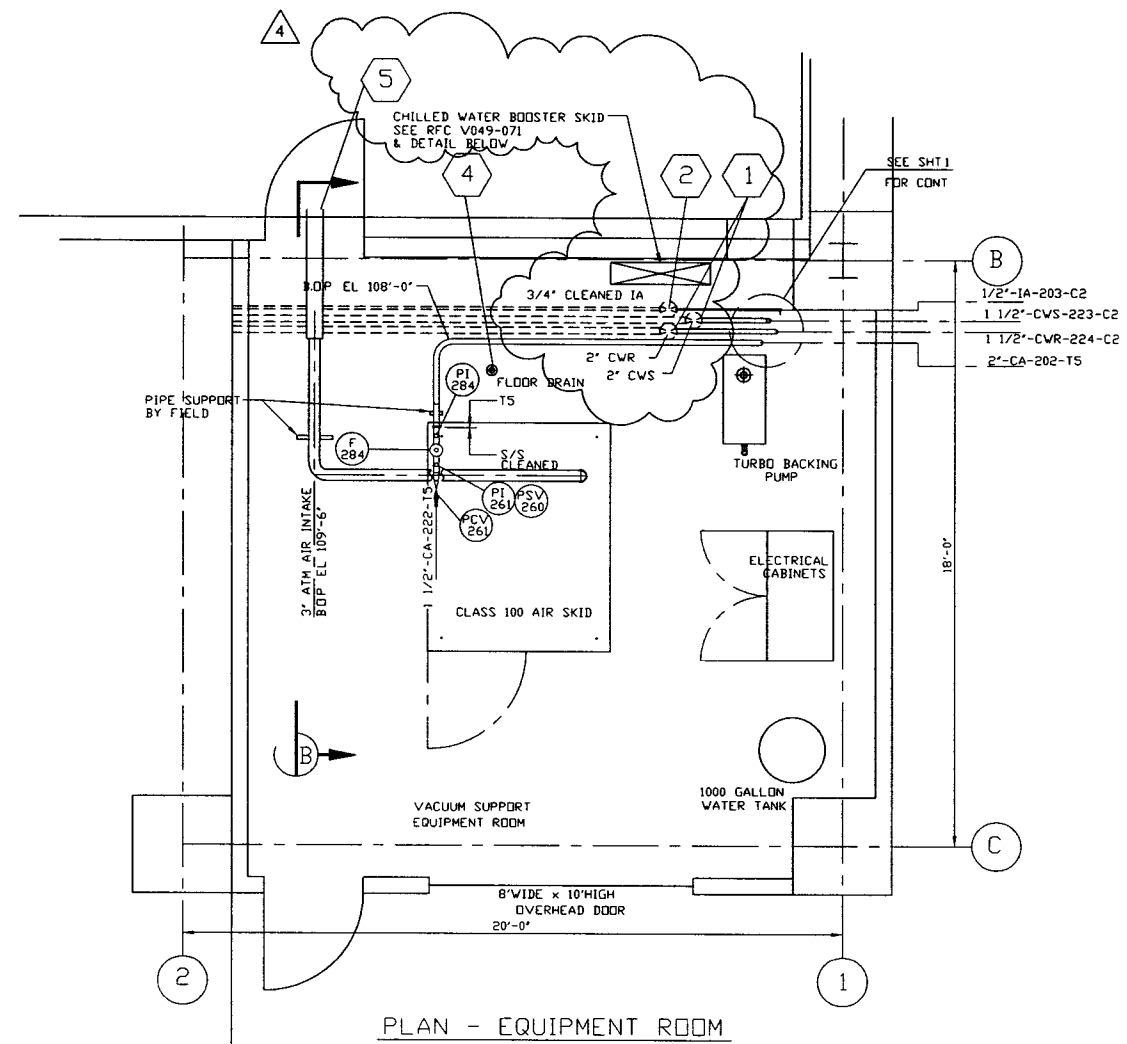
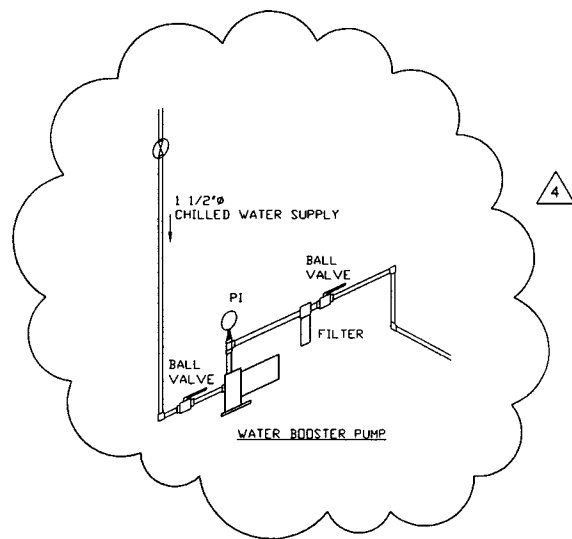
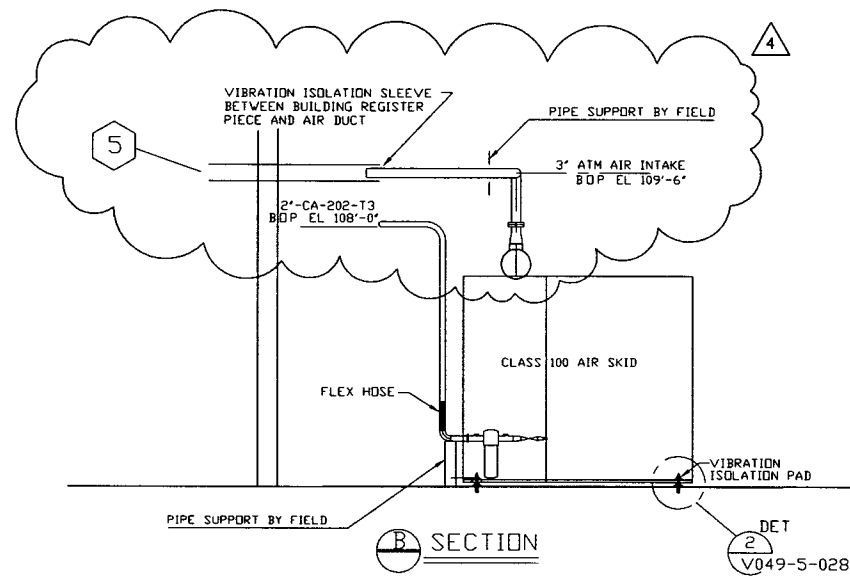
NOTE: 1. FIELD TO DETERMINE ACTUAL ELEVATIONS OF NOZZLES BEFORE FABRICATION OF PIPING

2. BRASS 4-HOLE FLANGES ARE PROVIDED WITH AMBIENT VAPORIZERS. THEY ARE TO BE SILVER SOLDER BRAZED TO AN ADAPTER TO S/S PIPE, TO BE PROVIDED BY SITE CONTRACTOR.

SEE SHEET 1 FOR REVISIONS

<b>PROCESS SYSTEMS INTERNATIONAL INC.</b> 20 WALKUP DR WESTBOROUGH, MASSACHUSETTS 01581 USA	
<b>LN2/GN2 ARRGT - UPPER PLANKLEFT LEFT MID STATION</b> <b>WASHINGTON SITE</b> <b>LIGD VACUUM EQUIPMENT</b>	
CAD FILE	SIZE
V0495026/5026S3	D
DWG NO.	SHEET
V049-5-026	3 OF 4
SCALE	
3/8"=1'-0"	

MAY 28, 1998 - 132412



SEE SHEET 1 FOR REVISIONS

<b>PROCESS SYSTEMS INTERNATIONAL INC.</b> 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
<b>PIPING ARRGT PLAN - EQUIPMENT RM</b> <b>LEFT MID STATION</b> <b>WASHINGTON SITE</b> <b>LIGD VACUUM EQUIPMENT</b>			
CAD FILE	SIZE	DWG NO	REV
V0495026/S026S4	D	V049-5-026	4
SCALE	SHEET		REV
3/8"=1'-0"	4 OF 4		4

MAY 28 1998 - 13:24 '98